

The reason why the boot configuration information should be restored before Windows95 loads Windows95-dedicated device drivers is to reduce the amount of data on the disk that must be copied to a memory at the boot time. Because the extended 5 memory has been not used yet at that time, even if the size of total memory is 512MB, memory of about 7MB only is saved to and restored from the disk, according to the methods shown in FIGS. 6 and 7. Therefore, the execution of CONFIG.SYS and AUTOEXEC.BAT can be skipped by restoring the contents of memory and the status 10 of devices based on the boot configuration information, thereby reducing the boot time significantly.

Though the description hereinbefore may refer to terms commonly used in describing particular computer systems and software, such as IBM personal computer and Windows95 operation 15 system, the concepts equally apply to other systems and software.

The foregoing is provided only for the purpose of illustration and explanation of the preferred embodiments of the present invention, so changes, variations and modifications 20 may be made without departing from the spirit and scope of the invention.

What is claimed is:

Sub A5

1. A method for booting a computer system, comprising the 25 steps of:

5. A. performing a power on self test (POST) of basic input output system (BIOS) when the system is powered on or reset is requested;

5. B. checking whether a boot configuration information 5 which was created in the preceding boot process exists or not;

AS 5. C. storing a boot configuration information after execution of the POST operation to a disk, based on the checking result; and

5. D. loading a graphic user interface (GUI) program.

10. 2. A method according to claim 1, wherein said step C stores the boot configuration information into a disk storage medium.

15. 3. A method according to claim 1, wherein said step C stores the boot configuration information after execution of the POST operation is completed and before an extended memory becomes in use.

4. A method according to claim 1, wherein said step C comprises the steps of:

20. checking contents of a memory block of a predetermined size;

storing the contents of the memory block into a disc storage medium based on the checking result; and

storing the address of the stored memory block in the disc storage medium.

25. 5. A method according to claim 1, wherein said steps A

to D are performed on a personal computer system.

Sub A6 6/ A method for booting a computer system, comprising the steps of:

5 A. performing a power on self test (POST) of basic input output system (BIOS) when the system is powered on or reset is requested;

10 B. restoring a boot configuration information by using the boot configuration information which has been stored after POST operation in a disk; and

15 C. loading a graphic user interface (GUI) program.

20 7. A method according to claim 6, wherein said step B further comprising the steps of:

executing an initial driving program based on a modified configuration information; and

25 updating the boot configuration information after said execution.

8. A method according to claim 6, wherein said step B comprising the steps of:

determining whether to restore said stored boot configuration information;

restoring the contents of memory blocks, addresses of which have been stored in said disk; and

25 writing zeros into other memory blocks than the restored

16
memory blocks.

9. A method according to claim 6, wherein said step B restores said stored boot configuration information before an extended memory becomes in use.

sub A7
10. A method for quickly booting a computer system in which Windows operating system is installed, comprising the steps of:

A. performing a power on self test (POST) of basic input output system (BIOS) when the system is powered on or reset is requested;

10. B. checking whether a boot configuration information which was created in the preceding boot process exists or not;

C. storing the current boot configuration information in a disk storage medium, if there is no stored boot configuration information;

15 D. performing a quick POST operation when the computer system is rebooted;

E. restoring the stored boot configuration information from the disk storage medium;

F. updating the boot configuration information before a 20 graphic user interface (GUI) program is loaded, if a designated boot configuration information is different from the restored boot configuration information;

11. A method according to claim 10, wherein said step B calls an interrupt for bootstrap loader to check if the boot 25 configuration information which was created in the preceding

boot process exists.

12. A method according to claim 10, wherein said step F determines whether or not the designated boot configuration information is different from the restored boot configuration information based on changes of CONFIG.SYS file and/or AUTOEXEC.BAT file.

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ABSTRACT

This invention provides a method for quickly booting a personal computer system by using a boot configuration information on memory and the attached devices that was created 5 and saved in a hard disk at the preceding boot process. The method for a quick boot process according to the present invention comprises the steps of performing a power-on self test (POST) operation when a personal computer system is powered on or a reset button is pressed; performing a normal boot process after 10 the POST operation; saving the contents of memory and the status of the attached devices to a hard disk; checking if a reboot is requested; restoring the saved boot configuration information from the hard disk, after POST is completed during the reboot process; checking whether or not an initial device 15 configuration file and/or an automatic batch file were changed; and executing commands in the two files and saving a newly created boot configuration information to the hard disk for future boot. Accordingly, this invention enables to boot a personal computer system quickly because of omission of 20 execution of the initial device configuration file and the automatic batch file.